

Protecting California's Critical Infrastructure



The Critical Infrastructure at Risk Guidance helps local governments and asset managers adapt transportation and water systems to sea level rise. See the [full guidance here](#).

Critical Infrastructure is Essential to Coastal California



Transportation

- Highways
- Local Roads
- Railways



Water

- Stormwater
- Wastewater
- Water Supply

Transportation and water infrastructure keeps California's communities, economy, and emergency services functioning.

70%

of Californians live in coastal counties

\$44 B

value of California's ocean economy



Storm and tidal flooding threatens many coastal roads, such as this one in Monterey County (CA King Tides Project).

How Sea Level Rise Threatens Critical Infrastructure

Storm Flooding



Roads and water systems flood more often, disrupting transportation and essential services.

Tidal Inundation & Submerged Land



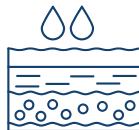
Recurring flooding closes low-lying roads and overwhelms drainage systems.

Coastal Erosion



Shoreline erosion damages roads, railways, pipelines, and wastewater facilities.

Seawater Intrusion & Groundwater Rise



Saltwater mixes with freshwater systems, reducing the effectiveness of drainage and wastewater systems.



Coastal erosion threatens vital transportation infrastructure, such as this road and railway in Santa Barbara County (CA King Tides Project).



Critical Infrastructure Has Unique Sea Level Rise Planning Challenges



Sea level rise threatens many wastewater treatment facilities, such as this one in Point Loma (City of San Diego).

Role and Purpose

Failure has damaging social, economic, political, and public health consequences.

Physical Characteristics

These systems are large, interconnected, often cross jurisdictional lines, and require years to plan and construct.

Significant Costs and Consequences

Critical infrastructure represents large public investments designed to last for decades.

Key Considerations for Adaptation Planning

Every community faces different sea level rise risks, infrastructure system needs, and local priorities. The guidance recommends six key considerations to inform adaptation planning:



Coordinated Planning

Work together with neighboring jurisdictions.



Environmental Justice

Equitably distribute new projects' burdens and benefits.



Tribal Consultation

Outreach early and coordinate continually with tribes.



Phased Adaptation

Phase implementation of adaptation strategies over time.



Cost and Funding

Plan proactively to significantly reduce future costs.



Nature Based Adaptation Strategies

Use natural systems to reduce hazards and preserve resources.

Updating Local Coastal Programs

It is important to update Local Coastal Programs (LCPs) with policies that address adapting transportation and water infrastructure for sea level rise. For additional guidance and model policy language, refer to the appendices of the [Critical Infrastructure at Risk Guidance](#) and the best available science in the [Sea Level Rise Policy Guidance](#).

Photo: Stormwater drainage in Monterey County (Doug McKnight).

